DOCUMENT RESUME

ED 456 828 IR 020 885

TITLE	Local Technology Plan Benchmark Standards for the Year 2003.
INSTITUTION	Massachusetts State Dept. of Education, Malden.
PUB DATE	2000-05-00
NOTE	30p.
AVAILABLE FROM	Massachusetts Department of Education, 350 Main Street, Malden, MA 02148-5023. Tel: 781-338-3000; Web site: http://www.doe.mass.edu. For full text: http://www.doe.mass.edu/edtech/broad/sixstandards.PDF.
PUB TYPE	Legal/Legislative/Regulatory Materials (090) -- Reports - Descriptive (141)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Academic Standards; *Benchmarking; *Computer Uses in Education; Educational Development; Educational Objectives; *Educational Planning; *Educational Technology; Elementary Secondary Education; Mission Statements; Technology Integration; *Technology Planning
IDENTIFIERS	Massachusetts

ABSTRACT

The Benchmark Standards were established by the Massachusetts Department of Education to: bring more districts into the information age; encourage every district in the state to provide an appropriate local infrastructure for information technology; help districts set realistic goals for their Local Technology Plans (LTPs); and ensure that districts remain eligible for federal and state funding. Background information for the LTP Benchmark Standards for the Year 2003 and on the Tech Plan electronic forms is provided, followed by more information on each of the Benchmark Standards: (1) Commitment to a Clear Vision and Mission Statement; (2) Access; (3) Infrastructure for Connectivity; (4) Technical Support, Technology Curriculum Integration, and Professional Development; (5) Accurate Data Reporting; and (6) Access to the Internet Outside the School Day. Appended are the Tech Plan Electronic Forms. (AEF)

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ED 456 828

Massachusetts Department of Education

Massachusetts Technology Mission Statement:
"To use information technology to improve lifelong learning and teaching in the Massachusetts public education system while contributing to economic development and fostering greater equity within the Commonwealth."

Mission Statement of the Massachusetts Education Reform Act:
"The mission of public education in Massachusetts is to provide each and every student with the values, knowledge, and skills needed to achieve full potential in his or her personal and work life and to contribute actively to the civic and economic life of our diverse and changing democratic society."

Local Technology Plan Benchmark Standards for the Year 2003

May 2000

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For questions regarding on-line submission of electronic forms contact the Ed Tech Hotline at 1-877-512-8324.

Local Technology Plan
Benchmark Standards for the Year 2003

Benchmark Standard:	More Information:
Purpose of Benchmark Standards: • To bring more districts into the information age • To encourage every district in Massachusetts to provide an appropriate local infrastructure for information technology • To help districts set realistic goals for their Local Technology Plans (LTPs) • To ensure that districts remain eligible for federal and state funding	Background: In 1995 school districts were asked to submit a Local Technology Plan (LTP) so that they would be eligible to receive the $30 per student Bond Bill Fund. The LTP was a five-year strategic plan, addressing long-term needs for hardware, software, networking, staff capacity, and technology professional development. A comprehensive LTP would support changes in curriculum, instruction, and assessment that were called for in the Education Reform Act. The federal government requires that districts have in place a state-approved and updated LTP in order to be eligible for E-rate discounts. Also, in order to be eligible for the Technology Literacy Challenge Fund (TLCF) subgrants, school districts must have technology plans approved by the state Department of Education. From 1995 to 1996, the Massachusetts Department of Education approved all the technology plans submitted by school districts. Since then, every year we have asked school districts to update their plans and report on their progress. Since 1998 districts have submitted their *Tech Plan Updates* on-line. To continue to support its districts, the Massachusetts Department of Education is requesting that each district renew its LTP. To help districts develop purposeful plans, the Department has established a set of benchmark standards. These standards are not mandated, but rather a representation of the minimum conditions for districts to meet by the year 2003. In developing these benchmark standards, we worked with a group of district technology specialists and reviewed national recommendations. The district technology profiles (in *Educational Technology in Massachusetts, 1999-2000)* show the wide range of access to technology throughout the state. In some districts there are three or four students per high-speed, multimedia computer, while in others the ratio is as high as twenty students to one computer. Those districts that have already achieved or surpassed the benchmark standards are reminded that these standards were created for districts that still have a long way to go. The Department of Education is committed to working with those districts that, in spite of their best efforts, have not provided sufficient access to technology. Through statewide programs such as ETIS (EdTech Integration Services), SaTL (Students as Technology Leaders), and MCN (Mass Community Network), all school districts should be able to reach these benchmark standards by 2003. For more information on these programs see the Massachusetts Department of Education Website: http://www.doe.mass.edu/edtech/

All districts are asked to submit their Tech Plan electronic forms on-line in June 2000. There are three parts to the Tech Plan electronic forms: • Baseline Data Collection Form for Local Technology Plan (submitted annually) • District Technology Profile (submitted twice each year) • Individual School Technology Profile (submitted twice each year)	This year any district that submits the Tech Plan electronic forms on-line will be eligible for technology grants and E-rate discounts. Information gathered from these forms in the spring of 2000 will provide the baseline data for tracking a district's progress over the next three years. Districts can use the baseline data to formulate or fine-tune their Local Technology Plans. In the spring of 2001 there will be a more interactive user interface, which will enable the Department to review districts' data. Districts that are not making progress toward the Year 2003 benchmark standards will be flagged for review. When you are ready to submit your Tech Plan electronic forms on-line, go to: http://www.doe.mass.edu/edtech/administrative/ims/tpu-2000.html
Benchmark Standard 1: Commitment to a clear vision and mission statement A. The district has a realistic and clearly stated set of goals. It is committed to achieving its vision by the target year 2003.	A Local Technology Plan helps districts identify resources and strategies that will ensure the most effective use of technology in its schools. The actual Local Technology Plan (LTP) is a document that a district develops and maintains at the district level. Do not send a hard copy of that document to the Department of Education. The DOE will not review that document unless data submitted on the Tech Plan electronic forms show that the district is not making progress toward meeting the Year 2003 benchmark standards. All districts are expected to submit their final data for the 1999-2000 school year on-line to the DOE in June 2000 on the Tech Plan electronic forms. Most of the questions on the Baseline Data Collection Form will be similar to the "District Technology Plan" form that districts have been completing for the past two years. In addition, it will include the questions about technology expenditures that, in previous years, were included in the year-end report submitted to the Department together with all other financial reports (in paper form). This year's data will serve as a baseline for districts in writing or revising their LTPs.
B. The district has a technology team.	Participants on a technology team could include: teachers (both general and special), curriculum coordinators, instructional technology specialists, network specialists, administrators, library media specialists, school committee members, parents, and community representatives, among others.

C The district has a budget for its local technology plan. The district's operational budget includes a line item for technology.	Because there are so many variables at work, it is difficult to say how much a district should be spending on technology. During the 1998-1999 school year, approximately 26% of districts spent over $250 per student. A 1995 study by Kinsey and Co., Inc. calculated the cost per student of implementing a classroom model in which every classroom is connected with networked computers at a ratio of 5:1, with a T-1 connection, to be $965 per student initially and $275/year per student over ten years. Another estimate calculated in 1998 by Integrated Technology Group, LLC, projects that the total cost of a technology program will run above $500 per student per year for the first five years (taking into account everything from personnel, training, curriculum development, hardware, software, infrastructure improvements, etc.) Both of these studies are cited in *Taking TCO to the Classroom.: A School Administrator's Guide to Planning for the Total Cost of New Technology*, a 1999 white paper issued by the Consortium for School Networking. (http://www.cosn.org/tco/project_pubs.html) Budgets should also reflect a line item for equipment and software that facilitate access to technology for students and staff with disabilities. (Examples include: variable height furniture, alternative keyboards, alternative mouse, large screen monitor, Braille printer, closed captioned TV, voice recognition software, and screen readers).

D. The district leverages the use of state, federal, and private resources :	The Department is committed to working with districts that are having difficulty funding their local technology plans. By making effective use of statewide programs these school districts should be able to meet the benchmark standards by the year 2003. For example: • ETIS (Educational Technology Integration Services) allows public schools and libraries to procure technology goods and services cost-effectively; • MassEd.Net provides affordable Internet access to currently employed and retired public school teachers; • MCN (Mass Community Network) will connect schools, libraries, and community centers with dedicated telecommunications services at below-market rates; • SaTL (Students as Technology Leaders) and YTE (Youth Tech Entrepreneurs) support local efforts to encourage students to be technology leaders; • Conferences, meetings and workshops spread the knowledge and experience of innovators. For more information on these and other state programs, visit the Massachusetts Department of Education Website: http://www.doe.mass.edu/edtech/ Privately funded programs, for example, those that provide refurbished computers or remote support, should also be considered. For the past three years the state has distributed approximately $7.5 million per year to schools through the Technology Literacy Challenge Fund (TLCF). We are required by federal regulations to distribute the funds through a competitive process. Therefore, we focus the grant funds on catalyzing change (integrating technology into the curriculum for increased student learning) rather than supporting operations. If the funded projects effect positive change, it is up to school districts to recognize the need for continued support of these projects in their yearly budgets. It is important that the district view grant funds as seed money and to make a long-term commitment to supporting its technology plan out of the district operating budget.

Benchmark Standard 2: Access By the year 2003, every district will have achieved at least a 5:1 student-to-computer ratio of modern, fully functioning, Internet-enabled computers and devices.	According to the data collected on the *Tech Plan Updates* in June and October of 1999, Massachusetts has a statewide average of 7.4 students per high-speed computer. Approximately 19% of the districts have already achieved or surpassed the ratio of 5:1. Another 23% of districts are very close to achieving the benchmark standard, with ratios falling between 5:1 and 7:1. "Modern, fully-functioning, Internet-enabled computers and devices" are those defined in categories A and B of the Computer Workstation Inventory on the District and Individual School Profile forms. These are multimedia computers with CD-ROM and Internet capability using an up-to-date browser. This year the Type A processor has at least 32-64 Meg RAM, with either Windows 95/98 or Mac Os 8.x operating system. The Type B processor currently has at least 16-32 Meg RAM and the operating system is Windows 95/98, Mac OS 7.6 or more recent. It is important to keep in mind that each year the Type A and Type B definitions are upgraded to account for new and faster processors. If a district has already reached the ratio of 5:1 for these types of computers, and does not allow for continuous upgrades, it will find its student-to-computer ratio climbing over the years, putting students at a disadvantage. Laptops now may be included in the inventory as long as they meet the criteria for Type A and Type B computers. Although hand-held devices and mobile computers (i.e. Palm Pilots and AlphaSmarts) are useful for augmenting classroom access, these should not be included in the inventory that will be used in calculating the student-to-computer ratio. They should be counted and reported in another section of the profile forms. Why did we set the benchmark standard at a ratio of 5:1? Nationwide, there is general consensus among experts that a ratio of 4 or 5 students per high-speed computer is required for successful implementation of technology in the classroom. A ratio of 5:1 was suggested in 1994 when the U.S. DOE established goals for educational technology: http://www.ed.gov/Technology/pillar1.html In 1997 the President's committee of Advisors on Science and Technology reported that a "ratio of 4 to 5 students per computer represents a reasonable level for effective use." According to a national survey conducted by NCES in 1999, the ratio of students to computers with Internet access had reached 9:1 h nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2000086

Benchmark Standard 3: Infrastructure for Connectivity The district ensures that every classroom and every administrative office has at least one computer with a high-speed connection to the Internet by the year 2003. A building's electrical service must be sufficient to support the computers and networks installed.	Since 1994 the federal government has been working toward a goal that every school and classroom will be connected to the Internet by the year 2000. According to the National Center for Education Statistics, in 1999, 63% of public school classrooms were connected to the Internet. In 1999, 63% of public schools were using high-speed connections (a dedicated line). http://nces.ed.gov/pubs99/1999017.html Data collected in Massachusetts on the *Tech Plan Updates* in June and October 1999 revealed that 69.2% of classrooms (statewide average) have some type of access to the Internet. Approximately 41% of districts reported that all of their classrooms are connected to the Internet. (The data have not been analyzed to show the type of connections.) Currently a "high-speed connection" is defined, for the purposes of our benchmark standards, as 56K or faster. However, in 2003 a 56K modem may no longer be considered a high-speed connection to the Internet. Just as the workstation types that qualify for the 5:1 student-to-computer ratio will change each year to accommodate new technologies, we can expect that the type of Internet connection that qualifies for this benchmark standard will change as well. Many districts that have wired their classrooms for Internet access have provided for not one connection in the classroom, but numerous connections (more in keeping with the ratio of 5 students per Internet-connected computer). The benchmark standard of one connection per classroom is believed by many in our working group to be inadequate if Internet-based activities are to have an impact on learning. The benchmark standard is a goal only for those districts that have not yet provided Internet access in every classroom. If a district is planning to wire a building, it should consider multiple active drops in each classroom, as well as the necessary upgrades in electrical service. If in its local technology plan a district envisions that the Internet will play an important role in teaching and learning, then careful infrastructure planning is in order.

Benchmark Standard 4: Technical Support, Technology Curriculum Integration, and Professional Development A. TECH SUPPORT: The district ensures that every administrator, teacher, and student receives high-quality user and system support so that by the year 2003 there will be at least one FTE (full-time equivalent) person to support 100-200 computers. Technical support can be provided by dedicated staff or equivalent services.	This benchmark standard was calculated based on the needs of an average school with approximately 600 students, 30-60 staff and 100-200 computers. However, school systems are diverse and there are many different variables at work in schools within a district: size of school; age of equipment; mix of computer platforms; level of expertise among teachers and grade levels served, to name a few. The needs for uninterrupted access to the Internet and equipment are much greater in a high school than in an elementary school, although they all need a basic level of support. The benchmark standard represents an average across a district. As one technology coordinator in our working group pointed out, if a district has a 5:1 student-to-computer ratio, but only enough tech support to keep the computers running 80% of the time, the effective ratio becomes 6.25:1. Districts should provide adequate technical support to maintain the 5:1 ratio at all times. A number of studies cited in the 1999 report by Consortium for School Networking (*Taking TCO to the Classroom*) found that in a business environment, a full-time computer support person is provided for every 50-75 users. While it may be unreasonable to expect schools to achieve the same level of support as businesses require, there is widespread consensus among educators that there is not enough tech support in the schools. A statewide average of 1.5 FTE for network/technical support per district was reported on the most recent *Tech Plan Updates*. (The data have not been analyzed to show FTE per 100-200 computers.) "Equivalent services" can be provided by volunteers or paid students, and many schools are taking advantage of these low-cost options. For information on programs for which students are trained as technology leaders, visit the Website of "Students as Technology Leaders" (SaTL), http://www.massnetworks.org/satl/
B. CURRICULUM INTEGRATION The district provides at least 0.5 FTE staff person to support every 30-60 users (staff only) in their efforts to achieve technology competency and to integrate technology into the curriculum.	This may include: curriculum integration specialist, library/media specialist, and technology professional development specialist, who provide mentoring, coaching, model teaching and co-teaching. It does not include teachers who teach computer courses to students. Again, this benchmark standard was based on an average size school. Actual requirements will vary from district to district. The high end of the ratio, 0.5 FTE to 60 users, may only be adequate in districts with a large percentage of experienced users. On the other hand, a ratio of 0.5 FTE to 30 users may be too low for districts with a large number of new users.
C. The district has an Acceptable Use Policy on the Internet	As in the past, districts will report information relating to safe Internet practices on the Baseline Data Collection Form.

D. TECHNOLOGY PROFESSIONAL DEVELOPMENT: By the year 2003, at least 85% of district staff will have participated in technology training sponsored by the district.	In June 1999, districts reported that 60.8% of staff had participated in technology professional development activities during the school year, an increase of 14% from the previous year. That is a statewide average, with a number of districts having surpassed this goal. Statewide, districts spent an average of $188 per staff person during the 1998-1999 school year, up 36% from the previous year. Technology is changing so rapidly that there will always be a need for training and curriculum integration support.. Even with a well-trained staff, continued professional development will be crucial if technology is to enhance student learning. Numerous research studies back this: The U.S. Department of Education's Office of Educational Technology is reviewing and revising the national educational technology plan. As part of this effort, a forum was held in December 1999, where experts explored future roles and trends in educational technology. One of the priorities identified was that "all teachers will effectively use technology." The report, which emphasizes that the need for training is ongoing, can be found at: http://www.air.org/forum/forum.htm Another important source is Education Week's *Technology Counts '99*. (www.edweek.org) In past years, on the *Tech Plan Update* we have collected data on the formal professional development activities offered by districts. However, teachers have told us repeatedly that they learn most effectively when they share ideas and activities for using technology in their curriculum, or when a mentor is available to help them integrate technology into their classroom activities. The Department of Education recognizes the importance of this type of continuous support from mentors, teacher leaders, or coaches during the school day. In addition, teachers might sharpen their skills at home with self-paced courses provided by the district. Such informal training activities can be included in the district's technology training profile section of the Baseline Data Collection Form. Because we are aware of the difficulty of counting staff hours for this type of professional development, we are asking districts to collect data on the percentage of staff reached by these types of informal training activities. Also appearing this year on the Baseline Data Collection section of the Tech Plan electronic forms is an additional question asking for the total percentage of district staff that have participated in technology professional development since 1998. We are measuring this percentage from 1998 because that is the year in which the state provided each district with entitlement funds of $15 per student for technology professional development. The Department of Education is collecting information only on a district's efforts to provide on-going technology professional development to its staff. A district may want to conduct its own evaluation of the level of proficiency that teachers achieve.
Standard 5: Accurate Data Reporting The districts maintain accurate data that meet state IMS standards.	The districts report student and district data on the SIMS (Student Information Management System) and DIMS (District Information Management System) Smartforms. For more information see the IMS (Information Management System) Website: http://www.doe.mass.edu/edtech/administrative/ims/

Standard 6. Access to the Internet outside the school day. A. The district works with community groups to ensure that, by 2003, students and staff will have sufficient access to the Internet, which will enable them to work outside of the school day. The school must maintain a catalog of places in the community ("points of access") where students and staff can gain access to the Internet after school hours.	A priority of the U.S. Department of Education has been to close the "digital divide" so that all Americans will have access to technology. In a national effort to expand access, $44 million in grants were awarded in April 2000 to organizations such as community centers, libraries and schools to create 214 Community Technology Centers. The centers will make computers and Internet access available to low-income residents in urban and rural communities. http://www.ed.gov/PressReleases/04-2000/0418.html As a first step in addressing the digital divide in Massachusetts, the Baseline Data Collection Form includes questions to determine whether or not districts are making efforts to ensure that all students have access to technology outside the school day.
B. The district has an up-to-date Web site and every educator has an Internet account with the capability of sending e-mail and accessing the World Wide Web.	Education Week's *Technology Counts '99* reports that the percentage of schools where at least 50% of teachers have school-based e-mail addresses was 48% for Massachusetts respondents, as compared to 65% for the national sample (www.edweek.org). In the Milken Exchange Survey of Technology in Schools (September 1999) the percentage of districts surveyed that report parents and teachers can communicate frequently via e-mail was 17% for Massachusetts respondents, as compared with 26% for the national sample (www.mff.org). To ensure access for all users, including those with disabilities, school web sites should be designed to meet the standards for accessibility. Guidelines of the Web Accessibility Initiative can be found at: http://www.w3.org/WAI/ Another tool that will help determine accessibility of a web site is *Bobby*. *Bobby* is a web-based tool that analyzes web pages for their accessibility to people with disabilities. This tool can be found at: http://www.cast.org/bobby/

Instructions for Completing and Submitting Your Tech Plan Electronic Forms On-line

When you are ready to submit your Tech Plan electronic forms on-line, go to:
http://www.doe.mass.edu/edtech/administrative/ims/tpu-2000.html

Use the same user name and password that you used to submit your report last year.
You will be asked to complete the following three forms:

- Baseline Data Collection Form
- District Technology Profile
- Individual School Technology Profile

We have provided copies of these forms in this document for preview purposes only. Use them to help gather the information you will need when you submit your Tech Plan electronic forms on-line. Your Tech Plan electronic forms must be submitted on-line for approval. In June 2000, each time you access your record you will see the status of your report displayed as one of the following:

NEW

Initially, all the electronic forms -- the Baseline Data Collection Form, District Technology Profile, and Individual School Technology Profile -- will be marked as "NEW." The Baseline Data Collection Form will be blank for your completion. The District Technology Profile and Individual School Technology Profile will display FY2000 data that were submitted during October 1999. The profiles will display FY1999 data if they were last updated in June 1999. For those districts that did not update during either June or October 1999, data will appear from FY1998. All data on any form can be changed as appropriate to reflect final FY2000 information as of June 2000.

SAVED

As information is entered into a form, incorrect formats will be disallowed (for example, alpha characters cannot be entered into a box that requires a number). Pressing the SAVE button will save any data that has been entered. No additional validation of the information is required at this point. The form's status will become SAVED, indicating that data have been entered into the form in the acceptable field formats. The SAVED status allows a user to exit before finishing. The next time the form is accessed, the previously entered data are displayed.

COMPLETE

When all data have been entered into a form and the data are accurate, the user should click the COMPLETE button. This action will validate the full form, checking, for example, that all required fields have been filled in. If they have not, error messages will appear. Any errors found by the validation process must be corrected. Data in a form marked as complete can still be changed.

SUBMITTED

Once the Baseline Data Collection, District Technology Profile and Individual School Technology Profile forms are complete, the set of forms is ready to be SUBMITTED to the Department of Education. A form must be submitted in order to complete the process of updating. No changes can be made to the data in a form marked as SUBMITTED. Users must log on with the Superintendent's signature user name and password in order to have the capability to submit forms. The SUBMIT button appears on the screen only when the Superintendent's signature username and password have been used to log on.

THIS FORM IS PROVIDED HERE FOR PREVIEW PURPOSES ONLY. TO SUBMIT YOUR TECH PLAN ELECTRONIC FORMS ON-LINE GO TO:
http://www.doe.mass.edu/edtech/administrative/ims/tpu-2000.html

Baseline Data Collection Form

<Name of District> District Technology Plan

Additional Instructions:
You must enter a number in all boxes that call for a number. You cannot leave these boxes blank. If your response for a box is none, please enter a zero (0).

You must check one response for any question that requires a Yes, No or NA response.

For any field requiring a dollar amount, use whole numbers only. Do NOT use dollar signs ($), commas (,) or alphabetic characters.

District Code (*automatically inserted*) District Name (*automatically inserted*)

Tech Plan Status: *(automatically inserted)*
Last Updated Information: (*automatically inserted*)
Today's Date: (*automatically inserted*)

Person Responsible for Completing Form

First Name Last Name
Title Function (drop down)

If Function is Other, Please Specify
Email
Phone
District Website (if none, enter "n/a"): *(provide URL)*

I. VISION , MISSION, AND GOALS

A. Summarize the vision, mission and goals of your district technology plan including how your district will use technology to improve student learning, support teacher professionalism and assist district administration.

2000 characters max: (*text box*):

B. Technology Team

Please list the current members of your Technology Team, including the Role/Affiliation of each member. Please enter a maximum of 20 team members.

C.. Technology Expenditures 1999-2000

Instructions for filling out "Technology Expenditures" Worksheet

Sections I – III are defined as follows:

Section I – School Committee

School Committee (or municipal) expenditures are defined as expenses paid out of local appropriations through such funds as State Chapter 70 funds, local receipts from taxes, and other expenses which come under the levy limit outlined by Proposition 2 1/2. These expenses are for actual amounts paid during FY2000.

Section II – Bonded Technology

Bonded Technology expenditures are defined as total expenses for technology purchases for which a municipality has bonded. This should equal the total amount spent in FY2000 as part of an authorized bond purchase and may or may not be the total obligation of the bond. (For instance, a district bonds $500,000 for technology purchases and expends $430,000 in FY2000; the amount reported is $430,000.)

Section III – Grants/Other

Grants/Other expenditures are defined as expenses paid out of grant funds from local, state and federal sources. These funds may be from private grants as well as public. These expenses are for actual amounts paid during FY2000 and do not necessarily reflect the total amount of the grant.

Columns 1-6 are defined as follows:

Column 1 – Administrative Technology

Administrative Technology expenditures are defined as expenses incurred in support of administrative positions such as Superintendent, Principal, Business Manager, Secretarial and others that are considered "non-instructional" positions. If these expenses are for district personnel, expenses should be pro-rated to reflect the percentage of each individual's time actually spent on administrative activities.

Column 2 – Instructional Technology

Instructional Technology expenditures are defined as expenses incurred in support of regular teachers and curriculum. Providers of this support could include: technology integration specialist, library/media specialist, and technology professional development specialists (TPD specialists) who are involved in curriculum integration. This area should NOT duplicate any of the Professional Development expenditures included in column three. If these expenses are for district personnel, expenses should be pro-rated to reflect the percentage of each individual's time actually spent on instruction-related activities.

Column 3 – Professional Development
Professional Development expenditures are defined as expenses incurred training staff (both administrative and instructional) in the use of new technologies acquired by a school system. This may include hardware and software purchased as well as training expenses if used for professional development purposes. If these expenses are for district personnel, expenses should be pro-rated to reflect the percentage of each individual's time actually spent on professional development-related activities.

Column 4 – Maintenance and Support
Maintenance and Support expenditures are defined as expenses incurred supporting existing computing services in a district. Examples of this might include network administrators, support technicians, repair and maintenance contracts and contractors, etc. If these expenses are for district personnel, expenses should be pro-rated to reflect the percentage of each individual's time actually spent on maintenance and support-related activities.

Column 5 – Networking
Networking expenditures are defined as expenses incurred building and expanding networks within and outside a district, as well as connectivity expenses between schools in a district and the Internet. Examples might include network wiring and hardware, Internet connections to local Internet service providers, high-speed data lines such as T1, 56kb line, consultants in the design and implementation of new networks, etc. If these expenses are for district personnel, expenses should be pro-rated to reflect the percentage of each individual's time actually spent on network-related activities.

Column 6 – Total
The electronic form will automatically calculate the total.

NOTE: Distribute expenditures across categories so that spending is not double-counted.

I. School Committee	Administrative Technology	Instructional Technology	Professional Development	Maintenance & Support	Networking	Total
Professional Salaries						
Other Salaries						
Contracted Services						
Hardware						
Software						
Other Expenditures						
Total						

II. Bonded Technology	Administrative Technology	Instructional Technology	Professional Development	Maintenance & Support	Networking	Total
Contracted Services						
Hardware						
Software						
Other Expenditures						
Total						

III. Grants & Other	Administrative Technology	Instructional Technology	Professional Development	Maintenance & Support	Networking	Total
Professional Salaries						
Other Salaries						
Contracted Services						
Hardware						
Software						
Other Expenditures						
Total						

Total Number of Students in District: *(Provided by DOE source)*

Per Student Expenditure on Technology (from all sources: I, II, III): (*automatically calculated*)

Per Student Expenditure on Technology (from source I, School Committee): *(automatically calculated)*

Per Student Expenditure on Technology (from source II, Bonded Technology) *(automatically calculated)*

Per Student Expenditure on Technology (from source III, Grants & Other) *(automatically calculated)*

D. Leveraging of State and Federal Initiatives

State or Federal Initiatives	Did you use during 1999-2000
E-Rate	__Yes __No
ETIS: Hardware Telecom Services	 __Yes __No __Yes __No
MassEd.Net (ONLY CHECK YES IF DISTRICT IS PAYING FOR THIS SERVICE.)	__Yes __No
Other	__Yes __No (If yes, specify in text box)

2. TECHNICAL SUPPORT, CURRICULUM INTEGRATION, AND TECHNOLOGY PROFESSIONAL DEVELOPMENT

Please complete the following table for only those personnel involved in technology and only for the portion of time they spend with the following technology tasks. For example, if a full-time staff member is dedicating 25% of his/her time to technology, that person should only be counted as 0.25 FTE in the chart below.

Human Resources in Technology Functions:	District Staff FTE (full-time equivalent)	Contracted Services FTE (full-time equivalent)	Other (volunteers, students, aides, paraprofessionals etc.) FTE (full-time equivalent)
LEADERSHIP (those who are in charge of technology decision-making for the district			
Technology coordinator, technology director, assistant superintendent, principal, etc.)			
CURRICULUM INTEGRATION (those who provide guidance and support in the instructional uses of technology)			
Curriculum Integration Specialist (e.g. library /media specialist, technology specialist, TTPD, Mentors, etc.)			
Curriculum Integration Support (e.g. technology aides, tutors, volunteers, etc)			
ADMINISTRATION (those who provide technology administrative functions)			
Application Developer/ Programmer			
Data Manager or Operator			
Other			
NETWORK/TECHNICAL SUPPORT (those who provide support for hardware, software and network)			
Network/System Manager Coordinator			
Maintenance & Repair Specialist			

Acceptable Use Policy on Internet

	Elementary	Middle	High School
Do you provide Internet access to your students?	Yes No NA	Yes No NA	Yes No NA
Do you provide Email accounts to your students?	Yes No NA	Yes No NA	Yes No NA
Do you have an acceptable use policy for your students?	Yes No NA	Yes No NA	Yes No NA
If your district does not have an acceptable use policy for students, do you plan to develop one?	Yes No NA	Yes No NA	Yes No NA
When? (mm/dd/yyyy)			

If you have an acceptable use policy, is it in your student handbook or posted on the Internet?	Yes No NA	Yes No NA	Yes No NA
Do you have a filter to limit student Internet use?	Yes No NA	Yes No NA	Yes No NA
If your district does not have a filter, do you have plans to install one?	Yes No NA	Yes No NA	Yes No NA
When? (mm/dd/yyyy)			

Technology Training and Professional Development

Please provide the number of staff members who participated and the number of staff hours (# of staff x # of hours of training) of technology training professional development that occurred in each of the following areas:

Technology Training Profile

What is the total number of staff (administrators, teachers, support staff) in your district (during school year 1999-2000)?	# Staff Members
Estimate the percentage of staff that have received technology professional development sponsored by the district (during school year 1999-2000)?	%
What is the total number of staff-hours* of technology professional development activities (e.g., workshops, credit courses, study groups, etc.) sponsored by the district (during school year 1999-2000)?	Hours
Does your district provide other types of training during class time (i.e. coaching, mentoring, co-teaching)?	__Yes __No
If answer is yes, what percentage of staff is reached by training in such a manner?	%
What is the total percentage of district staff who have participated in technology professional development sponsored by the district since 1998?	%

*If a district sponsors a 2 hour workshop and 10 staff are attending, the staff hours will be 20.

Please provide the number of staff (head count) who participated in each of the following types of technology training and the total number of staff hours involved.

Type of Technology Training Professional Development	Number of Staff	Number of Hours
Computers & Network Operations (computer, networks, multimedia basics)		
Personal and Professional Use (productivity & presentation tools; telecommunications; creativity technologies; assistive technology; research & data manipulation; ethics and legal issues)		
Integration into the Curriculum (Interdisciplinary; Curriculum Frameworks: English Language Arts, Math, Science & Technology, History & Social Science, World Languages, Arts and Health); Assessment (Electronic Portfolio, etc.)		
Other Technology Training		

If you have other types of tech training, please specify type of training (*Text box*)

3. ACCESS TO THE INTERNET OUTSIDE THE SCHOOL DAY

A. Do you work with community groups to ensure that, by 2003, students and staff will have sufficient access to the Internet, which will enable them to work outside the school day?

__Yes ___No

If yes, provide the names of organizations: *(text box)*

B. Do you have an up-to-date catalog of information on how students can gain access to the Internet after school hours?

__Yes __No

C. Are you collecting data on the numbers of students who use the Internet after school hours?

__Yes __No

THIS FORM IS PROVIDED HERE FOR PREVIEW PURPOSES ONLY. TO SUBMIT YOUR TECH PLAN ELECTRONIC FORMS ON-LINE GO TO:
http://www.doe.mass.edu/edtech/administrative/ims/tpu-2000.html

<Name of District> District Technology Profile – 2000

Additional Instructions:
You must enter a number in all boxes that call for a number. You cannot leave these boxes blank. If your response for a box is none, please enter a zero (0).

You must check one response for any question that requires a Yes, No or NA response.

For any field requiring a dollar amount, use whole numbers only. Do NOT use dollar signs ($), commas (,) or alphabetic characters.

Please provide the current information about the LAN, Internet connections and computer workstations that reside in the district's administrative offices.

District Code XXX District Name XXXXXXXXXXXX Fiscal Year XXXX
Profile Status XXXXXXXXXXX Last Updated XXXXXXX Today's Date XXXXXXX

Person Responsible for Completing Form:
First Name
Last Name
Title
Function *(use the following choices)* (Note: These are functions only. Job Title is entered above.)

- Superintendent Assoc
- Superintendent
- Superintendent Asst
- Director Admin Assistant
- Adult Education
- Asst to Superintendent
- Athletics
- Attendance
- Bilingual Education
- Business
- Chapter 1
- Curriculum
- Federal Project
- Grants
- Guidance Services
- Health Services
- METCO
- Media Services
- Nutrition
- PALMS
- Personnel
- Physical Plant
- Prof Development
- Pupil Pers Services
- Special Education
- Technology

- Vocational Education
- Instructional Technology
- Other

If Function is Other, Please Specify

Email
Phone

District Wide Area Network

Do you have a District Wide Area Network (WAN) linking multiple buildings?
If yes, please complete all questions in this section.
YES NO N/A (if district has only one building)

What is the type of connection from the district to the Internet Service Provider (ISP)?
- Cable Modem
- Cable I Loop
- Dedicated Line (Point to Point or Frame Relay)
- Dial Up
- District owned network
- Frame Relay
- ISDN
- Microwave
- Other
- Point to Point
- xDLSL

If Other, please specify.

What is the speed of your district's Internet connection?
- 1.5Mb
- 128kb
- 384kb
- 56kb
- Between 128kb and 1.5Mb (Fractional T1)
- faster than 1.5Mb

When is the expiration date of the contract with your current ISP?
- We have a month to month contract
- The contract expires before June 30, 2000
- The contract expires between July 1, 2000 and June 30, 2001
- The contract extends beyond July 1, 2001

What do you pay per year for your district's access to the Internet?

Is your access line for Internet Service separately billed?
YES NO NA

If your access line for Internet service is separately billed, what do you pay per year?

District Offices

District Administrative Offices are defined as the work spaces of those who provide district-wide administrative functions – for example, the Superintendent, Superintendent's Secretary, Business Manager, etc. (Do not include School Administrative Offices, such as School Principal in this form. They will be entered on the Individual School Profiles.) Count each workspace individually even if it exists in a room with several other workspaces. A workspace is defined as the working environment for a single individual.

If a workspace provides both district and school administrative functions, record the connectivity and inventory information in **either** the school or district profile form, but **not** in both. **Offices, computers and connections should not be double counted.**

Connectivity Information

	Number of District Administrative Workspaces
Total Number of District Administrative Offices?	
Number of District Administrative Offices Connected to LAN (Local Area Network)?	

Number of District Administrative Offices with the following types of Internet Connections: (Count only the fastest connection if there are more than one per workspace.) Do not count workspaces that have a connection but no computer.	**Number of District Administrative Workspaces**
Dial-Up Internet Access?	
56K Frame Relay Internet Access?	
ISDN Internet Access?	
T1 Internet Access?	
Other Type of Internet Access –Please specify *(text box)*	

If you have a network, how many active drops do you have that are not connected to a computer?

Name of Primary Internet Service Provider (Text Box)

Computer Workstation Inventory

(For district-level administration only) When in doubt, choose categories that most closely match your processor's RAM.

Number of Workstations in Each Category

Computer Platform (including laptops)	**Type A** Function: Multimedia computers with CD-ROM/DVD and Internet capability using browser *Processor:* Pentium II or higher Mac G3, I-Mac, or higher (or comparable clones) 32-64 Meg RAM or higher *Operating System:* Windows 95/98/NT Mac OS 8.x (or more recent)	**Type B** Function: Multimedia computers with CD-ROM and Internet capability using browser *Processor:* Pentium, Mac Power PC (or comparable) 16-32 Meg RAM *Operating System:* Windows 95/98 Mac OS 7.6	**Type C** Function: Computers with or without Internet Capability *Processor:* 486 PC Mac 040 (Or lower) 8-16 Meg RAM (Or less) *Operating System:* Windows 3.1 Mac OS 7.0 (or earlier versions)
Administration			
Windows/PC			
Apple/Macintosh			
Other			

Telephone Services

How does your school district purchase its voice telephone service?

- From statewide blanket contract
- Town purchases phone service
- District purchases its own phone service
- Other

If Other, please specify.

Who is your vendor for local telephone service?

When is the expiration date of the contract with your local phone service?

- We have a month to month contract
- The contract expires before June 30, 2000
- The contract expires between July 1, 2000 and June 30, 2001
- The contract extends beyond July 1, 2001

How much does your district annually spend on local telephone service?

Who is your vendor for long distance telephone service?

When is the expiration date of the contract with your long distance phone service?

- The contract expires before June 30, 2000
- We have a month to month contract
- The contract expires between July 1, 2000 and June 30, 2001
- The contract extends beyond July 1, 2001

How much does your district annually spend on long distance telephone service?

How much does your district annually spend on local and long distance telephone services combined?

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http://www.doe.mass.edu/edtech/administrative/ims/tpu-2000.html

<SCHOOLNAME> Individual School Technology Profile – 2000

Additional Instructions:
You must enter a number in all boxes that call for a number. You cannot leave these boxes blank. If your response for a box is none, please enter a zero (0).

You must check one response for any question that requires a Yes, No or NA response.

For any field requiring a dollar amount, use whole numbers only. Do NOT use dollar signs ($), commas (,) or alphabetic characters.

Please provide the current information about the LAN, Internet connections and computer workstations that exist in the district's administrative offices.

District Code XXX
School Code XXX
Last Updated XXXXX

District Name XXXXXXXXX
School Name XXXXXXXXXXX

Fiscal Year XXXX
Profile Status XXXXXXX
Today's Date XXXX

School Local Area Network

Do you have a School Local Area Network (LAN)?
If yes, please complete all questions in this section.
YES NO

What does your Local Area Network (LAN) connect to?
- A District Wide Area Network (WAN)
- Directly to the Internet
- Neither
- Both

What is the type of connection from the school's LAN to the Internet Service Provider (ISP)?
- ISDN
- Point to Point
- Frame Relay
- Cable Modem
- Microwave
- Other
- XDLSL
- Dedicated Line (Point to Point or Frame Relay)
- Cable I Loop
- District owned network
- Dial Up

If Other, please specify. (text box)

What is the speed of your school's LAN Internet connection?

- 56kb
- 128kb
- 384kb
- 512kb
- 1.5Mb
- faster than 1.5Mb
- Between 128kb and 1.5Mb (Fractional T1)

When is the expiration date of the contract with your current ISP?
- We have a month to month contract
- The contract expires before June 30, 2000
- The contract expires between July 1, 2000 and June 30, 2001
- The contract extends beyond July 1, 2001

What do you pay per year for your school's access to the Internet? (text box)

Is your access line for Internet Service separately billed?
YES NO NA

If your school's access line for Internet service is separately billed, what do you pay per year?
Text box

School Connectivity

School Administrative Offices include the work spaces of those who provide school-wide administrative functions, such as Principal, Secretary, Guidance Counselor, etc. Count each workspace individually even if it exists in a room with several other workspaces. A workspace is defined as the working environment for a single individual.

If an office provides both district and school administrative functions, record the connectivity and inventory information in **either** the school or district profile form, but **not** in both. Offices, computers and connections **should not be double counted**.

	Number of Classrooms (Include computer lab, library media center, etc.)	**Number of School Administrative Workspaces**
Total Number		
Number Connected to LAN		

Number of Classrooms and School Administrative Workspaces with the following types of Internet Connections: (Count only the fastest connection in classrooms with more than one type. Do not count classrooms or administrative workspaces that have a connection but no computer.)	**Number of Classrooms**	**Number of School Administrative Workspaces**
Dial-Up Internet Access		
56K Frame Relay Internet Access		
ISDN Internet Access		
T1 Internet Access		
Other Type of Internet Access		

Please Specify Other Internet Access Type *(text box)*

Name of Primary Internet Service Provider *(text box)*

Computer Workstation Inventory

(For school-level only) When in doubt, choose categories that most closely match your processor's RAM.

Number of Computers in Each Category

Computer Platform (including laptops)	**Type A** Function: Multimedia computers with CD-ROM/DVD and Internet capability using browser *Processor:* Pentium II or higher Mac G3, I-Mac, or higher (or comparable clones) 32-64 Meg RAM or higher *Operating System:* Windows 95/98/NT Mac OS 8.x (or more recent)	**Type B** Function: Multimedia computers with CD-ROM and Internet capability using browser *Processor:* Pentium, Mac Power PC (or comparable) 16-32 Meg RAM *Operating System:* Windows 95/98 Mac OS 7.6	**Type C** Function: Computers with or without Internet Capability *Processor: 486 PC* Mac 040 (Or lower) 8-16 Meg RAM (Or less) *Operating System: Windows 3.1* Mac OS 7.0 (or earlier versions)
Instruction			
Windows/PC			
Apple/Macintosh			
Other			
Administration			
Windows/PC			
Apple/Macintosh			
Other			

E-Rate Questions

How many students are eligible for free lunch?

How many students are eligible for reduced lunch?
Is your school considered to be in an urban or rural area as defined by the SLD (Schools and Library Division of the F.C.C.)?

Assistive Technologies

Check below if any of the following assistive technologies are currently available for use in the classroom for students with disabilities:

Alternative input methods for computer use (e.g. modifications to standard keyboards, touch screens, microphones, switches, etc.)
YES NO

Alternative output methods for computer use (e.g. speech synthesizers, large print output, refreshable Braille or text-to-speech, etc.
YES NO

Closed Caption for Video
YES NO

Do you provide software that has been universally designed (i.e. designed with built-in alternatives for students with disabilities)?
YES NO

When purchasing technology, do you consider accessibility for students with disabilities?
YES NO

Other Technologies

Single Function Machines:	**Total Number:**
Dream Writer/Alpha Smart	
Graphing Calculator	
Camcorder	
LCD Projector	
Scanner	
VCR	
Television	
Handheld Devices [i.e. Palm Pilot, PDA (Personal Digital Assistant)]	
Other	

If other, please Specify *(text box)*

Electrical Services

Percentage of Classrooms and administrative offices that have the electrical capacity to support a 5:1 student-to-computer ratio (not counting computer labs) %

Massachusetts Department of Education

This document was prepared by the Massachusetts Department of Education
Dr. David P. Driscoll, Commissioner of Education

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